

September 17, 1999

**To:** Interested Parties

**RE: DRAFT PROPOSAL ON CONSUMER DATA REPORTING REQUIREMENTS**

The Ad Hoc Information Committee is pleased to release Its ***Draft Proposal On Consumer Data Reporting Requirements***. The Committee appreciates the input to date from parties on consumer data issues and has benefited from listening to your concerns and suggestions. The Committee believes this proposal strikes an appropriate balancing of the competing interest represented in the proceeding regarding the need for and methods to collect consumer data.

The Committee has faced difficult decisions in trying to fairly allocate appropriate responsibilities for data submission to the respective entities in the restructured market. Over the course of the proceeding, several parties – primarily Energy Service Providers and other private retailers – suggested that the Committee should continue to rely on utilities, consistent with past practices, as the primary agents for data collection. After extensive deliberation, the Committee has concluded that such an approach would be inconsistent with the restructured market in which we now operate, especially for data related to the retailing function now performed by new market entrants. The Committee does, however, agree that the Utility Distribution Companies should have principle responsibility for data submissions for data primarily related to the distribution function they now perform. The Committee believes this approach will result in the most efficient and equitable distribution of data collection obligations.

The Committee's proposal includes a number of innovative compliance options that will allow us to minimize the costs and resource commitments associated with meeting the Energy Commission's data collection requirements. Among these is reliance on filings with other agencies where comparable data is already being provided. In addition, the Committee is proposing to rely on collaborative processes as compliance options for some data elements that will allow the Energy Commission to leverage the collective efforts of multiple parties to provide essential data to the Energy Commission.

The Committee will be holding a hearing on October 13, 1999 to receive comments from parties on this draft consumer data proposal. The Committee is requesting that parties file written comments by October 6, 1999 in order to allow sufficient time for parties to review the comments of their peers prior to the hearing. Following the hearing, the Committee will make any necessary revisions to the consumer data proposal. The Committee then proposes to combine its already finalized generator data proposal with the final consumer data proposal into one report that will be released by the end of October. The Committee will bring this report before the full Commission for action at a regularly scheduled Business Meeting in November 1999.

Respectfully,

*<original is signed and on his personal letterhead>*

MICHAL C. MOORE  
Commissioner and Presiding Member  
Ad Hoc Information Committee

# DRAFT

## PROPOSAL ON CONSUMER DATA REPORTING REQUIREMENTS: Consumption, Consumer Characteristics and Load Research Data

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9/20/99

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The Committee expresses our appreciation to our fellow Commissioners and their respective advisors for their helpful insights, comments and suggestions in preparing this report. We are especially grateful for the guidance and direction from Commissioner Advisors, Susan Bakker and Bob Eller.

## ***Disclaimer***

This report was prepared by the California Energy Commission's Ad Hoc Information Committee to revise the Energy Commission's Data Collection Regulations in light of the Restructuring of the Electricity Industry . The report is proposed for adoption at a future Energy Commission Business Meeting. The views and recommendations contained in this document are not the official policy of the Energy Commission until the report is formally adopted.

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# EXECUTIVE SUMMARY

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## INTRODUCTION

In this report, the Ad Hoc Information Committee (the Committee) presents its draft proposal for consumer-information reporting requirements. The report identifies needs and uses for three categories of data:

- Consumption (or usage) data for electricity and natural gas;
- Consumer-characteristics data; and
- Load-research data.

The Committee's approach for consumer data collection will result in major streamlining and an overall reduction in the reporting of data compared to existing practices. By relying on compliance options and collaborative processes, the Committee has also outlined a number of elements in its proposal that should increase the overall efficiency and cost-effectiveness of the Energy Commission data collection efforts. The Committee has limited its proposal to the minimum data necessary for the Energy Commission to carry out its mandated functions. These functions include market monitoring, trends assessment, and policy development required under the Warren-Alquist Act. The Committee believes its proposal will provide the Energy Commission with sound information on which to develop robust energy policies for the state. At the same time, the Committee is convinced its proposal meets the policy objective of providing for data collection that is not overly burdensome or costly.

## THE CHANGING ROLE OF UDCS AND RETAILERS

An important aspect of the Committee's consumer data proposal is its alignment with the current realities of the restructured electricity market. The Committee's proposal explicitly acknowledges the changing role of Utility Distribution Companies (UDCs). Where investor-owned utilities were once the sole provider of retail customer sales, UDCs, Energy Service Providers (ESPs), and other retailers now provide these services. As the sole provider of electricity, the utility had an obligation to serve. With that came the primary responsibility for forecasting and planning for the needs of all customers in their service area.

UDCs now have an obligation to connect customers and to serve only as the default provider, meaning a drastic reduction in their forecasting and planning role. The Committee believes that the new market structure no longer obligates UDCs to serve as an intermediary for the purposes of data collection. Consistent with this change in suppliers and responsibilities is the Committee's proposal to collect consumption data directly from the retailers – UDCs, ESPs, and other retailers – who supply electricity and natural gas to end-use customers. The primary rationale for this change is the Committee's implementation of the principle that entities providing equivalent products and services should have equivalent data-submission obligations.

## **CHANGES IN FUNDING OF DATA COLLECTION ACTIVITIES**

One of the primary issues the Committee faced regarding consumer data was the uncertainty about funding data-collection activities that were previously conducted by monopoly utilities in the regulated market. Much of the consumer data needed by the Energy Commission, including customer characteristics and load research, was funded through the Demand Side Management (DSM) budgets of investor-owned utilities (IOUs). AB 1890 transferred oversight for the energy-efficiency surcharge, also referred to as the Public Goods Charge (PGC), to the California Board of Energy Efficiency (CBEE), along with the funding of certain related data-collection activities.

Recently, an agreement was reached under the California Measurement and Advisory Council (CALMAC) that, if successfully implemented, will provide a framework for ongoing funding of some important data-collection activities. Under the agreement, the Energy Commission would receive \$2.9 million to conduct research and surveys that would provide important data on energy consumption. It would provide for UDCs to supply the data and customer information necessary for the Energy Commission to conduct surveys and research. The agreement also allows UDCs to be reimbursed through PGC funds for the costs associated with meeting Energy Commission data requirements. This framework allows the Energy Commission to rely on collaborative efforts as compliance options for consumer data and to properly assign certain data collection responsibilities in its proposal.

## **OVERVIEW OF CONSUMER DATA COLLECTION PROPOSAL**

The following outlines the principle features of the Committee's consumer data proposal:

### **Consumption Data**

- The Committee proposes that all retailers of electricity and natural gas provide the Energy Commission with monthly consumption data and number of accounts, filed on a quarterly basis, by 4-digit SIC code and county. The Committee will rely on accounting system extracts where retailers process their accounting system data and file aggregate data with the Energy Commission.
- The Committee believes the most efficient way to accomplish economic activity classification of consumption data is to rely on UDCs perform SIC coding for all customers, including direct access customers. UDCs have the resources and expertise to perform this activity. The Committee believes this is a distribution-related function, rather than a retail function.

### **Consumer Characteristics Data**

- The Committee proposes to establish fixed survey requirements for medium and large utilities, including UDCs and municipal utilities, to obtain consumer characteristics data. Utilities would be required would be require to file residential and commercial survey every two years and industrial surveys every four years, with supporting documentation.

- The Committee proposes a compliance option that would involve participation in the CALMAC collaborative effort described above, which would reimburse the UDCs and municipal utilities. The Committee believes this is the most efficient way method to leverage the collective efforts of parties in conducting consumer characteristics research and surveys.
- The Committee proposes to rely on estimation techniques as a substitute for accounting-based revenue data. In lieu of accounting-based revenue data, retailers will be asked to prepare an estimate of average commodity price by sector.

## **Load Research**

- The Committee recommends continued collection of load research data from medium and large utilities (UDCs and municipal utilities) for both system and sector load shapes. The Committee believes, as with consumer characteristics, this is a distribution-related function.
- The Committee proposed that Energy Commission staff take on primary responsibility for conducting research or survey on end-use load shapes. The Committee will eliminate the existing requirement on utilities for end-use load profiles.
- The Committee proposes to accept utility submission of the Federal Energy Regulatory Commission's (FERC) data (Form 714) as a compliance option for load shapes.

## **Confidentiality and Disclosure**

- The Committee proposes that a parallel process be initiated to revise the Energy Commission's confidentiality regulations along with the development of data collection regulations.
- The Committee proposes to replace the existing 3/60 disclosure rule in current confidentiality regulations. The Committee has outlined a new proposed confidentiality and disclosure measure in the body of the report.
- The Committee proposes to treat consumption and revenue data as confidential and protect against disclosure unless the data has already been disclosed publicly.

## **NEXT STEPS**

The Committee will hold a public hearing on October 13, 1999 to receive comments on the draft proposal on consumer data. The Committee is requesting that parties file written comments by October 6, 1999 to give parties a chance to review comments prior to the hearing.



# BACKGROUND

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## INTRODUCTION

In this report, the Ad Hoc Information Committee (Committee) lays out its proposal for collecting essential data from electricity providers on electricity consumption (or usage), consumer (or retail-customer) characteristics, and load research. The data the Committee is proposing to collect on consumer information will be used by the Energy Commission in carrying out its mandated functions of market monitoring, trends assessment, and policy development.<sup>1</sup> This proposal streamlines and reduces reporting burdens for the industry compared to practices currently in place.

## LEGAL MANDATES

The Warren-Alquist Act mandates the Energy Commission to evaluate the trends in energy supply and demand, statewide demographics and economic factors that would effect the demand and supply of energy; and the social, economic and environmental implications of these trends<sup>2</sup>. As such, the Energy Commission has very broad analysis and data collection authority under the Act to allow it to monitor energy industries and assess long-term trends in order to develop and implement energy policy for the State. The Act requires the Energy Commission to analyze supply and demand for all energy markets and energy products and services including electricity, natural gas, petroleum and petroleum products, transportation and alternative fuels, energy efficiency, and renewables.

In its June 12, 1998 *Report on the Energy Market Information Proceedings*, the Committee developed findings of fact and conclusions of law with respect to its jurisdiction and authority for its information-related functions. This report was developed largely to respond to parties' questions and concerns regarding the Energy Commission's authority and jurisdiction in the restructured electricity market. At its June 24, 1998 Business Meeting, the full Energy Commission adopted the Committee's findings and conclusions dealing with the Energy Commission's jurisdiction and authority, as well as its roles and functions in the restructured electricity market.

The Energy Commission concluded that its responsibilities for assessing and monitoring energy market trends and developing energy policies continue to be justified and may become more important as the competitive electricity market emerges. The fundamental public interest rationale for continued assessment and monitoring of the electricity industry are the statewide electric system impacts and environmental impacts associated with electric facilities and the consumption of electricity. The addition of new power plants and transmission lines directly impacts the operation of other power plants and transmission lines in the interconnected electricity grid, and involves environmental and other impacts that extend beyond the local area where facilities are sited. Energy demand growth, the implementation of energy efficiency measures, and demand responsiveness strategies (including load bidding) can also have

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<sup>1</sup> *Report on the Energy Market Proceedings*, Ad Hoc Information Committee, June 12, 1999.

<sup>2</sup> Public Resources Code Section 25216.5

profound effects on the integrated electricity system. As such, an understanding of these impacts is an essential input to developing informed State energy policies.

The Energy Commission found that while the nature of the electricity industry has changed to rely on market forces and competition, this restructuring, in and of itself, does not eliminate the need for its electricity monitoring and policy development functions. It is important to note that other energy markets have become increasingly competitive over the last 20 years, in particular oil and petroleum products markets. The Energy Commission has continued to monitor trends and assess these competitive markets, identified major emerging problems and helped to avoid some projected future problems altogether. These activities were supported by ongoing data collection on oil and petroleum markets that provided the information base for analytical studies.

The Energy Commission went on to endorse certain activities, including data collection, that support these core functions and concluded these activities remain important to State decision-makers, consumers and market participants. The Energy Commission concluded that electric industry restructuring does not change the Energy Commission's authority or responsibilities to collect data necessary to carry out its mandated functions. The Energy Commission also concluded that it has ample authority under existing mandates to collect data to support its core functions from new market participants, where appropriate.

## PAST DATA COLLECTION PRACTICES

Since 1976, the Energy Commission has collected natural gas and electricity consumption and revenue data aggregated by categories of end users. The ***Quarterly Fuels and Energy Report*** (QFER) process has been the Energy Commission's primary vehicle for collecting energy consumption and revenue data. The QFER database provides a uniquely detailed picture of energy consumption than other sources because it disaggregates the consumer categories by the nature of the economic activity at the location. The data supplied under QFER forms the basis for analysis of energy demand in the state.

QFER has chronicled how much electricity and natural gas was consumed on a monthly basis in the state since January 1976 by approximately 1600 different customer categories. The database also details how much those consumers paid for the energy. End uses of electricity and natural gas in the non-residential economic sectors are categorized according to SIC codes that describe various aspects of economic activity for which the energy is consumed. For residential end uses, data is classified into six special subdivisions based on dwelling and meter type. The QFER database includes not only sales to utility customers but consumption by small power producers and gas customers served directly by non-utility suppliers.

QFER data is an essential input to the Energy Commission's demand forecasting and demand analysis activities. Typically, forecasts of energy demand for a specific set of related customer categories rely on estimates of historic, current, and future energy use by appliance types and process equipment. To test the plausibility of various forecasting assumptions, demand models are used to prepare backcasts of historical consumption that can then be compared with actual recorded consumption.

Historically, this level of detail on energy consumption has allowed comparisons of energy demand patterns among many different types of economic activities. In addition, since geographical data is collected through QFER, research has been possible into relationships between energy consumption and a variety of climatic, economic and demographic variables. It has been used to analyze changes in electric and natural gas consumption patterns. QFER data, along with demand side data collected through the **Common Forecasting Methodology** (CFM), has also served as an essential input to traditional energy planning uses, such as supply and demand balances conducted for past **Electricity Reports (ER)**. CFM data has historically included long range demand forecasts and utility data plans to provide data on consumer characteristics and load research.

The Committee notes that the Commission's demand forecasting efforts have been acknowledged as highly accurate and have helped to ensure that California did not follow the excess construction path that many states took. During recent legislative discussions about energy oversight functions and governance, forecasting was broadly supported. In this proceeding, the Committee has attempted to ensure that data essential to the Energy Commission's demand forecasting efforts will continue to be available. At the same time the Committee is proposing major streamlining to minimize the costs and burdens this may place on the industry.

## RESTRUCTURED ENVIRONMENT

Restructuring of the electricity market has resulted in major changes in the demand-side, or consumption, aspects of the market. The introduction of competition in the generation of electricity has created new energy suppliers and products. It has also changed the way electric loads are treated in the market. In the regulated monopoly environment, investor-owned and municipal utilities were the primary agents supplying electricity to end-use consumers. These utilities had an exclusive right to be the sole suppliers of electricity to customers in a specific franchise territory. As such, these utilities were the primary sources of data on electricity consumption and uses in the state. With restructuring, new entities have emerged as retail suppliers and correspondingly have become a source for data on electricity consumption for their retail sales.

Under restructuring, retail electric customers can now choose from competing energy suppliers. New (Electricity Service Providers) ESPs have emerged to serve the needs of electric customers throughout the state. The former investor-owned utilities, now Utility Distribution Companies (UDCs), have retained their obligation to distribute electricity, which remains a monopoly service under the regulated portions of the electricity market. However, they no longer have the exclusive right to sell electricity to end-use customers in a geographic region, or franchise service territory. Currently, they are the "default provider" of electricity supplies, meaning a customer has to choose a different supplier or the UDC will automatically serve it. [Most municipal utilities have retained their ability to be the sole provider of retail electricity for their service territories under restructuring.]

AB 1890 provided for two types of ESPs that could provide direct-access sales to electric customers. Registered ESPs are required to demonstrate certain capabilities and to disclose terms and conditions of product offerings as a condition of serving the residential and small-commercial market. Those ESPs serving only larger nonresidential customers are not obligated to meet these requirements. Both types of EPS and UDCs provide comparable retail energy services to end use customers. However, UDCs and municipal utilities perform additional distribution functions that are not provided by ESPs.

The new market structure has resulted in changes in the way electric loads are considered. Because each hour of the year is a separate and distinct market, the need for hourly characterizations of customer loads has become increasingly important. In the earlier era of regulated vertically-integrated monopolies, peak-demand estimates were often sufficient to simulate how hourly variations in usage over a year translated into the highest demand from the connected load on the utility system. Under the rate freeze provisions of restructuring, a succession of hourly load profiles<sup>3</sup> are required for billing of all customers and must be ready for use no later than five days after the final day of consumption. Market participants also use load profiles to aid in bidding into the California Power Exchange (PX) or scheduling load into the Independent System Operator (ISO) on an even more rapid turnaround. UDCs use load profiles to develop average PX prices for each customer class as a part of the disaggregated billing requirements of all customers, whether unbundled customers of the UDCs or direct-access customers. Load profiles have become an increasingly important tool in understanding electricity consumption in the restructured market.

Previous California Public Utility Commission (CPUC) actions have permitted natural gas marketers to sell commodity gas to retail customers, but under different terms and condition for two broad groups: core and non-core customers. Core customers include residential and small commercial customers that the Local Distribution Company (LDC) retains an obligation to serve. Non-core customers include those who acquired their own supplies from natural gas marketers while continuing to use the LDC's distribution system. Beginning in 1990, aggregators, or what the CPUC now terms Core Transport Agents (CTAs), were permitted to aggregate core customer loads and to market gas to these groups. As with electricity, natural gas utility LDC's function as the default provider of retail services. However, for natural gas this default function is limited to smaller customers. These entities all function as retailers in the natural gas market since their common service is selling commodity energy to retail end-use customers.

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<sup>3</sup> (As commonly used)

# PUBLIC PROCESS

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## ENERGY MARKET INFORMATION PROCEEDING

In order to bring its data collection and information-related functions and responsibilities more in line with this restructured industry, the Energy Commission established the Committee and delegated to it three principal tasks:

- Initiate a rulemaking to amend and delete existing regulations and adopt new regulations relating to disclosure of Energy Commission records (confidentiality regulations);
- Convene a proceeding to serve as a central forum for the discussion of issues associated with the Energy Commission's data-related responsibilities that may be broader than regulation changes;
- Initiate a rulemaking to revise the Energy Commission's data collection regulations.

The Committee prepared revisions to the Energy Commission's confidentiality regulations that were adopted by the Energy Commission on April 15, 1998 and have since been approved by the Office of Administrative Law. The Committee held a series of workshops to address the broader issues of data needs and the necessary changes to data collection regulations in light of electric industry restructuring. Parties raised concerns regarding the Energy Commission's authority to collect data from various market participants and the functions the Energy Commission would perform under restructuring. The Committee's work on the rulemaking was effectively suspended while it deliberated these concerns. The June 12, 1998 ***Report on the Energy Market Information Proceeding***, previously referred to, dealt with the primary issues of jurisdiction and functions. On June 25, 1998 the Committee released its ***Scoping Report Describing Resumption of the Rulemaking*** that outlined the scope and timelines for the resumed rulemaking.

The Committee held a series of workshops to review exact data needs and various alternative ways that data needed by the Energy Commission could be acquired. There were a number of active participants in these workshops including representatives from UDCs, ESPs, independent generators, owners of divested generation, and others. Staff prepared a series of issue papers dealing with data needs, methods and uses that were released and discussed at the workshops. In addition, parties filed comments and proposals for the Committee's consideration. The **Appendix** outlines the consumer data workshops, staff papers and comments filed by parties in the proceeding.

## NEXT STEPS

Following the release of the Committee's draft proposal on consumer data requirements, the Committee will hold a hearing on October 13, 1999 to receive public comments. The Committee is requesting that parties file written comments on the consumer data proposal with the Energy Commission by October 6, 1999. The Committee is also offering parties

the opportunity to file reply comments at the October 13, 1999 hearing. After reviewing the comments received, the Committee will then finalize its consumer data requirements proposal. The Committee proposes to combine its proposal on consumer data requirements with the already finalized generator data requirements proposal (released August 17, 1999), into one report to be released on October 30, 1999. The Committee proposes to submit the consolidated report for Energy Commission action at its regularly scheduled Business Meeting on November 17, 1999.

# OVERVIEW OF CONSUMER DATA COLLECTION ISSUES

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## PRINCIPLES

To guide the data-collection rulemaking, the Committee developed principles which were endorsed by the full Energy Commission in June 1998. One of the primary goals of the rulemaking was to streamline data collection activities where possible and to develop efficient, equitable and cost-effective methods for acquiring needed data. On the demand side, this means the Energy Commission needs sufficient data to allow it to assess consumer-choice opportunities and pricing influences in the new market structure. This understanding requires data about consumer behavior. The Energy Commission concluded that it also must develop new demand-forecasting capabilities, to predict load accurately either for policy analysis or as input to electricity system assessment.

The Energy Commission has already determined that the function a market participant performs, regardless of whether that entity is a regulated monopoly or private market participant, should dictate what data it supplies. The policy principle underlying this is that entities performing equivalent functions or delivering equivalent services should have equivalent data-submission responsibilities.

For consumption data, the Committee believes the appropriate interpretation of this principle is that retailers, whether utilities (UDCs or municipal utilities) or private providers, should submit comparable information about their sales of energy to end-use customers. It is the energy-retailing function that is common to UDCs, municipal utilities and ESPs in the electricity market. In the natural gas market, LDCs, marketers, and CTAs have the retailing function in common. The fact that utilities have other functions within the industry that retailers do not perform does not diminish the equivalence of the retailing functions they do share. The Committee also believes that under this principle utilities may continue to be obligated to provide certain information and data based on their electricity and natural gas distribution functions. Retailers would not be required to provide such distribution-related information because they do not perform these functions.

## ASSESSMENT ACTIVITIES AND USES FOR CONSUMER DATA UNDER RESTRUCTURING

As the Committee has outlined in previous reports, the Energy Commission conducts analytical activities to support three primary functions relevant to this proceeding: energy industry monitoring, trend assessment and policy development. These activities are carried out as part of the Energy Commission's broad assessment authority under the Warren-Alquist Act. The purpose of the Energy Commission's analytic activities is to inform the Governor, Legislature and the public about the mid- and long-term outlooks for the energy industry and to develop robust strategies under a range of future scenarios. In addition, these analytic activities provide for the early-warning system for impending or potential

problems in the energy industry. This involves examining the impact of future demand trends on the economy, the environment, and public health and safety. This information forms the foundation on which policy makers can address important energy issues facing the state and establish sound energy policy.<sup>4</sup>

To support these analytical activities, the Energy Commission collects data and develops accurate information on current and historic electricity consumption and end-use customers. The Committee's proposal focuses on historic data that describes what energy consumers use, what factors influence this amount of consumption, and what options consumers had available to choose from when they made decisions about their provider and levels of consumption. In addition to historic data, the Committee has outlined data needs for developing long- and mid-range forecasts. These forecasts require projections of variables including data on consumer characteristics and load research data.

Data on energy consumption, consumer characteristics, and load research is the primary information the Energy Commission uses to identify trends in consumption and utilization of energy, and to evaluate the impacts of these trends. These assessment activities provide the foundation for policy recommendations relating to energy demand. In the restructured environment, these data allow the Energy Commission to evaluate the performance of the restructured market in comparison with policy makers' expectations outlined in AB 1890 and SB 477. Assessment of actual impacts of market performance on energy consumption requires collection of historic data. Assessing impacts of restructuring on load patterns requires hourly electric load data and comparison of these data with patterns that existed, or were predicted, before restructuring.

Electricity demand forecasts, both on a statewide and regional basis, are used by the Energy Commission to determine how much electricity will be consumed where, when and by whom. This is an essential element of our integrated energy-monitoring function that serves as an early-warning system on whether trends are consistent with state policies and the extent to which these policies are being achieved. The forecasts and assessments include demand for both electricity and natural gas demand to account for fuel switching or substitution between these energy types.

Demand forecasts developed by the Energy Commission are used for a number of other purposes including:

- electricity system analysis;
- building and appliance standards development and assessment;
- energy efficiency program targeting, measurement and evaluation;

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<sup>4</sup> For example, Energy Commission staff released a report in July 1999 examining Electric System Reliability under hot weather conditions, as load grows over time. This report identifies concerns with system adequacy beginning in the year 2001. This report relies on continued delivery of load data to the Energy Commission—now being considered by the Committee in this proceeding.



- electricity and natural gas price projections;
- assessing fossil fuel supply and demand; and a number of other purposes.

In addition to multiple applications within the Energy Commission, demand forecasts are used in CPUC proceedings; provide a baseline for assessing environmental rules and regulations; and are an integral input to assessing reliability in the new market structure. Current and proposed environmental policies can have substantial impacts on energy demand. Such impacts can be neglected if environmental policy agencies have an inadequate understanding of important consequences for the energy industry. The amount and time patterns of energy use have been affected by regional air quality agency attainment planning strategies that can be quantified using energy demand forecasting models, consumer characteristics and load research data, and electric system modeling.

Demand forecasts and consumer data are also essential to assessing demand responsiveness in the restructured market. Examples of demand responsiveness include:

- demand bidding strategies under the ISO and PX markets;
- rate design to communicate financial consequences of PX prices to end-users;
- interval metering and electronic telemetry to permit customers to receive the PX price signals and to have their bill reflect the end-users actual pattern of consumption;
- load shedding and other interruptible programs for those customers.

Other market participants such as ESPs, utilities, and financial institutions use demand forecasts to assess potential market opportunities, penetration and risks. State and local agencies collect taxes on energy consumption and energy production facilities.

Restructuring has changed the way tax revenues are collected and the entities now responsible for their payment and collection. Prior to restructuring, taxation on energy facilities was done at the state level. For divested power plants in the state, property tax collection has shifted to locals. In addition, prior to restructuring utilities were the primary entities selling energy services in the state. With the emergence of new retailers of electricity, energy sales from these new entities must be tracked and collected. The agencies collecting taxes often do not have the expertise on energy consumption to verify proper revenue collection. Cross-comparison of consumption-based revenues between the Energy Commission and taxing authorities can provide a benchmark to ensure that proper payments are being received. Another similar activity is the ability of the Board of Equalization to verify energy sales and assure it is properly collecting the energy surcharge for Energy Resources Program Account (ERPA) funds, the Energy Commission's primary funding source. Accurate energy consumption data by retailers is very important to these efforts.

Finally, an important need for consumer data is in the Energy Commission's implementation of public purpose programs under restructuring including energy efficiency, Research Development and Demonstration (RD&D) and renewables programs. The design of these programs requires strategic information on market research. This information is essential

to assure that public purpose program funds are targeted and produce tangible benefits to the state. In addition, some renewable programs are designed to encourage retail customer selection of “green” energy. Where public purpose funds provide subsidies, methods are needed to verify that the energy-consumption patterns of participating customers are different from those of non-participating customers in order to discern whether a true incremental impact has been stimulated. These activities related to public-goods programs require information on energy consumption, consumer characteristics and load research.

## **USES FOR CONSUMER DATA**

The following describes the consumer data the Energy Commission needs to carry out its mandated functions along with their uses.

### **Consumption Data**

Electricity and natural gas consumption data includes:

- sales to end users by commercial companies and regulated utilities,
- self generation of electricity by end users, and
- production of natural gas that is self consumed by the producer or distributed to an end users outside of any utility’s distribution network.

An important feature of this consumption data is the classification of end-use customers by economic activity for certain categories of customers. This data classification is essential to modern, economic activity-based, demand-forecasting models used by the Energy Commission. This highly disaggregated data is used to analyze specific industry-consumption patterns and to benchmark and calibrate demand-model results. Data on electricity and natural gas consumed or produced onsite has become an increasingly important element of the energy forecasting industry as end-use customers have chosen this option, for example, to reduce costs or improve the reliability of energy supplies. When combined with electricity and natural gas sales data, this gives the Energy Commission an overall picture of electricity and natural gas consumption in the state.

### **Consumer Characteristics Data**

Consumer characteristics data include structural, demographic and geographic characteristics that allow the Energy Commission to understand and explain evolving consumption patterns of electricity, natural gas and other fuels. These characteristics help to identify factors that influence customers’ choices of how much energy to consume as well as what options were available when they made their choices.

Specifically for residential uses, this data includes:

- date of dwelling construction,
- construction style and size of dwellings,
- appliance holdings and fuel shares;

- installation of energy efficiency measures and practices;
- and the number of occupants and the demographics and geographic location of households.

For commercial uses, this includes complex engineering details about the type and energy usage of HVAC systems, lighting, and other energy-consuming equipment. For industrial uses, customer characteristics include information on key production processes and other features that explain energy consumption for individual industries.

## **Load Research Data**

Load research data include hourly load shapes and or load profiles for utility systems, for different sectors, and different end uses. These hourly load shapes describe the patterns of how customers and systems use electricity. System load data are collected at points along the transmission system and account for the hourly loads in a utility's service area. Customer load data are collected through recorders installed on the revenue meters of a sample of customers. End use load data are collected through recorders installed on individual appliances or on dedicated circuits of a sample of customers. A series of meter-reads at different times and days of the week comprise a load profile for the system, customer or end use. As previously discussed hourly load patterns have become increasingly important to understanding energy demand in the restructured market.

## **CONSUMER DATA ISSUES**

Over the course of this proceeding, parties have raised concerns about the reporting of consumer data. The following discussion addresses some of the major concerns raised by parties. Additional specific concerns are addressed in more detail in the discussion of the Committee's proposal.

### **Need for and Burdens of Consumer-Data Collection**

Parties raised concerns about the need for data by the Energy Commission and costs and resources necessary to comply with Energy Commission data reporting. These concerns are similar to those raised by parties regarding generator data-reporting requirements. The Committee understands the concerns of parties and is proposing a number of features that will significantly reduce and streamline the Energy Commission's collection of consumer data. This streamlining will significantly reduce the amount of data collected and eliminate several categories of consumer data collected by the Energy Commission under existing data-collection regulations.

As with generator data, several parties, particularly ESPs, have suggested that the Energy Commission should continue to collect all consumer data from UDCs. Some have argued that they are small companies with limited resources and expertise to conduct many of the responsibilities to collect consumer-related data, currently born by monopoly providers. They further assert that imposing current reporting requirements for consumer information under QFER, CFM and Utility Data Plans would place undue burdens on them and could result in higher prices for consumers and a less competitive electricity market. However, the Committee notes that ESPs are currently required to file information on energy consumption with the Energy Information Agency (EIA), the Board of Equalization (BOE),

and many municipalities that impose electricity-usage taxes. In light of this, the Committee is attempting to reduce reporting burdens for all retailers by relying on existing reporting with other agencies as a compliance option under its proposal.

The Committee believes that requiring only UDCs to submit consumer data would raise issues of fairness. As a result, the Committee proposes to apply the adopted principle that function defines data-submission responsibilities to collecting consumer data. The application of this principle would require marketers, including ESPs, to file data on their sales to end-use customers. The Committee believes it is more appropriate that the entity that retails electricity to customers provide data on those sales than to rely on UDCs to report on all electricity sales. Using the UDC as the sole agent for consumer-data collection would be inconsistent with the current market structure.

In this proceeding, the Committee has also devoted considerable time and attention to determine the need for consumer data for the Energy Commission to carry out its mandated responsibilities. The Committee has listened carefully to the concerns of parties regarding the costs and burdens of consumer-data collection. As a result, the Committee has outlined a proposal that it believes balances the need for data against the costs and burdens associated with its collection. The Committee believes that the benefits of its data-collection proposal justify the collection of the data outlined in its proposal.

## **Funding of Data Collection Activities**

One of the fundamental issues that Committee has faced in designing a consumer data collection proposal is the funding of data collection activities. The changing role of utilities in the restructured market has brought into question the necessity of utilities performing certain activities to collect data and the funding of those activities by the CPUC. The responsibilities of the monopoly UDC has changed from what it was under the former monopoly industry structure. As a regulated monopoly, the utility had an obligation to serve which included long-run demand forecasting as an element of resource planning in regulatory proceedings. The UDC obligation to serve has been changed to an obligation to connect customers and serve as the default service provider. This change reduces or eliminates the need for the UDC to collect data that would permit it to make long-run demand forecasts. UDCs have asserted that the CPUC is no longer allowing the funding of such activities in traditional ratemaking. This includes data about customer characteristics to support structural modeling of demand and knowledge of general energy consumption within the service areas as an upper bound to potential utility energy sales and peak demand.

In addition, in decisions implementing the energy efficiency surcharge (or public goods surcharge under AB 1890) funding of certain activities that were included in utility Demand Side Management (DSM) budgets have been transferred to oversight of the California Board of Energy Efficiency (CBEE). Activities including SIC coding, demand forecast research, end-use customer surveys, load research, and other customer or market research efforts serve various other applications beyond DSM program planning, operations, and evaluation. However, the funding of these activities has raised additional concerns about the Energy Commission's continued reliance on UDCs as the sources of this data.

A recent agreement under the California Measurement and Advisory Council (CALMAC) framework may provide a new process for funding these activities. On September 7, 1999 an agreement was reached among major parties regarding a number of activities to be conducted under CALMAC that affect the Energy Commission's data collection.<sup>5</sup> The purpose of the agreement is to fund the activities of the Market Assessment and Evaluation (MA&E) and regulatory oversight portions of the UDC budgets for the Energy Efficiency Public Purpose Programs. The funding source is the revenue collected since 1/1/98 through 12/31/01 under the Public Goods Charge (PGC). The CALMAC framework establishes a collaborative framework for collecting data and conducting survey efforts associated with energy demand and energy efficiency programs.

Four elements of the agreement have implications for the Energy Commissions proposed data collection:

1. A \$2.9 million baseline budget for Energy Commission research and survey efforts to include consumer characteristics and load research data.
2. A provision that UDCs supply the necessary data and customer information to the Energy Commission to conduct surveys and research.
3. A provision that allows the option for additional research and survey studies identified as necessary.
4. A provision that allows UDCs to be reimbursed through PGC funds for costs associated with meeting Energy Commission data collection requirements.

The agreement defines the obligations and reporting convention of the UDCs and the Energy Commission for reporting under the MA&E budgets that are established in the CALMAC collaborative. Under this collaborative process, the Energy Commission would conduct consumer data analysis to identify patterns of and changes in demand for energy through saturation surveys, unit energy consumption, and energy use intensity studies. Surveys of the residential, commercial and industrial sectors would be conducted with PGC funds. The other important element of the agreement for data collection is the recognition that costs for processing billing, load metering, and other data used for survey samples should be covered with PGC funding. In addition, costs for processing customer sector and class load data, including SIC coding, for meeting consumer demand reporting requirements for the Energy Commission can be covered with PGC funding. The Committee believes that this framework provides the funding necessary to support several important activities related to the Energy Commission's consumer-data collection. The Committee urges the CPUC to accept this important resolution to an issue that has plagued the Energy Commission's data collection activities for the past two years.

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<sup>5</sup> The four UDCs (SCE, PG&E, SDG&E and SCG), the Office of Ratepayer Advocated, and the Energy Commission submitted Joint Recommendations for Market Assessment and Evaluation Activities in the 1999 Annual Earning Assessment Proceeding of the CPUC. CALMAC membership includes the six parties who joined the agreement, plus the Low Income Governing Board and California Board for Energy Efficiency.

## **Economic Classification of Consumer Data**

One issue of particular concern to parties in the proceeding is the economic classification of customer consumption data. Currently, the Energy Commission collects data on electricity and natural gas consumption based on 4-digit Standard Industrial Classification (SIC) codes. Staff and other parties have asserted during this proceeding that the majority of the costs of compliance with consumption-data reporting are not the extraction of data from accounting or customer-information systems, but rather the customer-specific effort to classify customers by their economic activity. Representatives of ESPs have asserted that they have no business interest in SIC codes for retail customers, i.e., SIC coding is not something they perform under the normal course of business and is not information that provides any value to them in conducting business. As such, they argue that to require them to conduct SIC coding for consumption data would impose an unreasonable burden on them. The Committee has examined a number of options to reduce the overall costs of economic-activity classification.

The Committee's proposal includes features that will help to reduce and more fairly distribute the costs of economic activity-classification. The Committee is proposing to have UDC's continue to perform SIC coding for all customers in their service areas, including direct-access customers. This economic classification activity is viewed by the Committee as part of the UDC's distribution function. The CALMAC framework provides for reimbursements of costs for performing SIC coding through PGC funding as discussed above.

## **Revenue Data**

ESPs and UDCs have raised two concerns about the proposed collection of revenue data as an element of current consumption data reporting requirements: the complexity of collecting that data for reporting and the confidential nature of the data.

ESP revenues may be very difficult to separate into energy services and other services for those firms selling multiple products to a customer under joint marketing practices or offerings. For example, energy-commodity services may be sold in conjunction with equipment sales that would reduce net energy purchases and a part of energy services package sold to consumers. In such cases, monthly payments by customers include both the commodity energy payments as well as the repayment of capital and installation costs for equipment that has been installed. These services may be co-mingled across the company. Disentangling the energy commodity payments from other services may prove to be extremely difficult if not impossible with any accuracy. Another complexity is the fact that some ESPs bill by contract, not by customer accounts or meters. The complexity of separating out data for reporting could mean that the reporting of revenue data would be of questionable quality and therefore of limited value. This fact has caused the Committee to examine other alternatives to collecting revenue data from retailers.

Revenue data is considered by retailers to be highly sensitive commercial data. Registered ESPs serving residential and small commercial markets are currently required to post prices and other terms and conditions of their product offerings. However, ESPs that are serving large commercial and industrial customers are not required, by the CPUC, to

divulge terms and conditions. These ESPs consider information about their prices, terms and conditions to be highly sensitive and are extremely concerned about the possibility of competitors gaining information that would put them at a competitive disadvantage. In addition, revenue data in aggregate could provide a description of the size of a firm, and in combination with other information, might be used by competitors to estimate cash flow, profitability, and other aspects of the competitiveness of certain firms. Privately held firms assert that if access to revenue information is gained by competitors or by others in financial markets it could negatively influence stock offerings and general perceptions of the firm in the electricity market.

As a general principle, the Committee does not believe that the mere fact that data is confidential or commercially sensitive in nature should preclude its collection if no other source of data meets the Energy Commission's data needs. However, the Committee has limited the amount of confidential data it proposes to collect to only that data essential to carrying out the Energy Commission's mandated functions. The Committee is proposing a number of elements in its consumer-data collection proposal to address confidentiality and disclosure concerns.

## **Confidentiality and Disclosure of Consumer Data**

Parties have raised privacy concerns about the reporting of individual customer consumption data. Parties have also raised concerns that the Public Records Act makes such as strong presumption of access to data and information that the Energy Commission will not be able to withstand a determined challenge to its confidential protections of data. The Committee believes that, in some limited cases, proprietary information on consumption, consumer characteristics, and load research is necessary for the Energy Commission to carry out its mandated functions. The fact that information is competitively sensitive does not relieve market participants from the obligation to provide information needed by state and/or federal agencies to perform their functions.

In fact, the legislature has adopted a statutory scheme in the Public Records Act that allows state agencies to conduct their business while protecting confidential data. These protections negate most possibilities that sensitive data will be obtained by others to the detriment of competitors or the market as a whole, which carries with it the responsibility to maintain confidentiality. The fact that these mechanisms are effective in enabling state agencies to both use and protect confidential data is confirmed by the long history the Energy Commission has in collecting confidential data – under QFER, Petroleum Industry Information Reporting Act (PIIRA) other regulatory programs – without release. The Committee has made every effort to minimize the amount of confidential data it will collect to only that which is absolutely essential for the Energy Commission to meet mandated responsibilities. The Energy Commission intends to safeguard data designated as confidential—to the fullest extent of the law.

Current Energy Commission confidentiality regulations identify a 3/60 rule for the provision of disclosure of data about individual consumers. Parties and staff have raised concerns about the effectiveness and workability of the current 3/60 rule. In response to these concerns and to concerns about release of detailed data about individual ESPs, the Committee is proposing that disclosure will not be based on “after the fact” rules like a 3/60

rule—rather disclosure will be based on a pre-determined template for what cells will be treated as public.

- Utility resources necessary to designate which data cells fail the rule;
- Staff resources necessary to conduct data “roll-up” procedures under the rule;
- Difficulties encountered by staff in conducting “roll-up” procedures; and
- Stakeholder discontent with the rule.

As a result, the Committee proposes that a parallel process be initiated to revise the Energy Commission’s confidentiality regulations along with the development of data-collection regulations to take place following Energy Commission action on the Committee’s data-collection proposals. This would allow the Committee to establish blanket confidentiality protection for appropriate data elements, alleviating the need for parties submitting certain categories of data to make case-by-case arguments for trade-secret protections. The Committee proposes to replace the 3/60 disclosure rule in current regulations. The Committee has outlined proposed confidentiality and disclosure measures in its more detailed discussion of the “Consumer Data Collection Proposal” Section. The Committee also proposes to initiate an internal review of staff’s confidentiality procedures to eliminate any potential flaws and identify opportunities to improve existing practices. With these additional efforts, the Committee is convinced that it is doing everything within its power to assure that confidential data is adequately protected by the Energy Commission.



# CONSUMER DATA COLLECTION PROPOSAL

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The Energy Commission's consumer data needs fall into three general categories. The following section discusses the data issues and Committee recommendations for the following categories of consumer data:

- Electricity and natural gas consumption data;
- Consumer characteristics data;
- Load research and load profile data.

The Committee is proposing a major streamlining of existing QFER, CFM and data plan requirements. This includes:

- The elimination and combination of a number of existing forms to reduce the overall number of forms entities will be required to file.
- The elimination of the current QFER requirements for a one-year ahead forecast of consumption.
- The elimination of the annual requirement for utilities to file plans and survey and analytical activities under the Utility Data Plan Regulations.
- The elimination of end use load research requirements under existing Utility Data Plan Regulations.
- Modification of the customer survey requirements under existing Utility Data Plan Regulations to shift toward the collaborative process under CALMAC.
- Development of a single electronic filing in a modern relational data base linking the necessary data elements and variables.

The Committee is proposing to eliminate the vast majority of CFM long-term forecasting elements for UDCs. The successful implementation of the CALMAC agreement will provide the Energy Commission with the necessary inputs for its demand forecasting activities of UDC service areas. This is consistent with the changing role of the UDC to no longer have primary responsibility for long term resource planning. However, it is unclear whether restructuring means the elimination of the long term resource planning role for municipal utilities. As a result of this uncertainty, the Committee is requesting the municipal utilities to come forward with proposals for data collection responsibilities for forecast-related aspects of consumer data collection.

## CONSUMPTION DATA

There were four primary issues facing the Committee with respect to consumption data:

1. who should be required to file data on electricity and natural gas consumption;
2. how should coding of an economic activity be handled;

3. what are appropriate measures to assure confidentiality and protect against disclosure of confidential consumption data; and
4. what data on revenue should the Energy Commission collect.

## **All Retailers File Electricity and Natural Gas Consumption Data**

As the previous discussion outlines, the Committee has determined that the “equivalent function” principle means that all retailers of electricity and natural gas should be required to submit information on electricity and natural gas consumption by their customers. While some parties suggested the Committee should rely on the UDCs as the primary agents to file consumer and consumption data, the Committee believes it is no longer appropriate to require UDCs to file consumption data on behalf of others. The Committee’s proposal represents a shift in responsibility for filing consumption data away from UDCs to the retailers who supply this energy to end-use customers. The result will be that all retailers – UDCs, municipal utilities, ESPs, and other retailers on the electricity side, and LDCs, CTAs, and other gas marketers on natural gas side – will have equivalent data-submission responsibilities for consumption data.

The Committee proposes that all electricity and natural gas retailers supply the Energy Commission with the following consumption data on a quarterly basis:

- aggregate monthly consumption by 4-digit SIC code and county, and
- monthly number of accounts by 4-digit SIC code and county.

Of the data-submission options presented, the Committee has selected the “accounting system extract” approach in which retailers would process the data within their accounting systems and file aggregated data with the Energy Commission. This option appears to be the most workable and efficient means of acquiring consumption data.

## **Confidentiality and Disclosure**

As previously discussed, the Committee has re-examined the issues of confidentiality associated with consumption data and determined that the existing 3/60 rule to provide customer privacy should be revised. It is the Committee’s intent to protect the disclosure of consumption and revenue data reporting – at the full level reported to the Energy Commission as confidential, unless the data has already been disclosed publicly. The Committee has determined that the Energy Commission should establish disclosure rules to provide parties with up-front knowledge of what will be disclosed. The disclosure rules the Committee is proposing will be a function of:

- the entity reporting,
- the geography being reported, and
- whether sales or deliveries are being reported.

**Table 1** provides the Committee’s disclosure proposal. This approach to disclosure should provide adequate protections against disclosing individual customer or ESP data, yet provide public access to some level of disaggregated consumption data.

**Table 1**  
**Proposed Disclosure Template for Retailer Energy Consumption Data**

<b>Geography</b>	<b>Individual ESP</b>	<b>Sum of All ESPs</b>	<b>Individual Small UDC<sup>1</sup></b>	<b>Individual Large UDC<sup>2</sup></b>	<b>Sum of All ESPs and UDCs</b>	<b>Total Energy Consumption<sup>6</sup></b>
<b>County</b>	None	Res Non-Res	None	Res Non-Res	EDD SIC Template <sup>5</sup>	EDD SIC Template <sup>5</sup>
<b>Service Area (SA)</b>	None	Major Sectors	Refined Sectors <sup>4</sup>	Refined Sectors	EDD SIC Template <sup>5</sup>	EDD SIC Template <sup>5</sup>
<b>Planning Area</b>	None	Major Sectors	Same as SA	Same as SA	EDD SIC Template <sup>5</sup>	EDD SIC Template <sup>5</sup>
<b>Statewide</b>	Major Sectors <sup>3</sup>		Same as SA	Same as SA	EDD SIC Template <sup>5</sup>	EDD SIC Template <sup>5</sup>

<sup>1</sup> Small UDC is one with less than 25,000 customers.

<sup>2</sup> Large UDC is one with 25,000 or more customers.

<sup>3</sup> Major sectors are residential, commercial, industrial, other.

<sup>4</sup> Refined sectors are those reported by Energy Commission staff in demand forecasting documentation.

<sup>5</sup> Employment Development Department releases employment data at various SIC aggregates necessary to preserve confidentiality of reporting firms statewide and for each individual county.

<sup>6</sup> Total energy consumption includes sales from all retailers as well as self-generation and non-grid connected loads

The other option the Committee considered for disclosure was an “after the fact” rule, such as a change from the 3/60 rule to fewer than 10 accounts would be made confidential. The Committee believes, based on parties comments, that parties appear to be more comfortable with using a “before the fact” disclosure rule, as proposed above, rather than a 3/60 or fewer than 10 rule.

## SIC Coding

The Committee believes the most efficient approach to SIC coding is to require UDCs to continue to classify all end-user accounts by SIC code, including those customers that participate in direct access. UDCs would then transfer the SIC coding to the retailer for its use in reporting to the Energy Commission by SIC-account aggregates. The CALMAC framework, previously discussed, provides PGC funding for QFER compliance, including SIC coding. Thus UDCs have a funding source along with the necessary resources and

expertise to conduct SIC coding themselves. Following the adoption of this report, we will convene a working group of ESPs, CTAs, and UDCs to develop the mechanics of this data exchange.<sup>6</sup>

The Committee proposes to draft regulation that would start with 4-digit SIC coding and shift over to the North American Industrial Classification System (NAICS) 6-digit coding system as it is put in place. All retailers will be required to provide a full set of 4-digit SEC code data to the Energy Commission that will be classified as confidential. Various aggregations of this data will be disclosable after processing by the Energy Commission.

One alternative that the Committee examined for SIC coding was the use of data “dumps” from UDCs and ESPs where the Energy Commission would take on the responsibility for SIC coding of raw data. In addition to the need to substantially increase Energy Commission resources to handle such a daunting task, this approach did not appear to be acceptable to parties due to concerns over confidentiality and customer privacy. The Committee also considered having ESPs do the SIC coding themselves. In response to this option, ESPs testified they had neither the resources nor the technical expertise to conduct the SIC coding.

An additional alternative, suggested by staff, was the use of EDD codes for economic-activity classification. Since that suggestion was made, a staff-EDD pilot project has shown limited success and has not yet adequately demonstrated that the customer matching required by this approach can be done with sufficient accuracy to be a useful alternative. The Committee is convinced that CALMAC funding for the SIC-classification effort on behalf of all retailers appears to be the best solution that can be devised.

## **Revenue Data**

As previously discussed, the Committee has determined that the complexity associated with utilities and other retailers providing monthly accounting-based revenue data would likely result in data submission on revenues that do not have a high level of accuracy. Discussions with private retailers of commodity energy have revealed substantial problems with the accurate reporting of just commodity energy for end-use customers. Among these are separating energy from other elements of contracts and tracing revenue back to specific accounts for geographic and SIC-code matching.

The Committee believes that estimation techniques should be used as a substitute for accounting-based revenue data for the purpose of understanding commodity prices. In lieu of accounting-based revenue data, retailers will be asked to develop a separate report of average commodity price by sector. This data will be classified as confidential, unless a specific element has already been publicly released by CPUC order or statutory requirement.

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<sup>6</sup> It is likely that this data exchange is would be most efficient if conducted as part of the Direct Access Service Requirements (DASR) process, but that some “make up” effort will be needed for current DA customers.

**Table 2**  
**Monthly Commodity Energy Price**

Energy Commodity	Unit	Sector			
		Residential	Commercial	Industrial	Agricultural
Electricity	\$/mwh				
Gas	\$/mmbtu				

## CONSUMER CHARACTERISTICS DATA

The Committee has determined that the Energy Commission needs data on consumer characteristics in order to meet its mandated functions. The primary issues facing the Committee with respect to consumer characteristics were

- The uncertainty about continued funding of survey efforts under the restructured market and confidentiality.
- Confidentiality, customer privacy and disclosure concerns.

## Funding of Collaborative Survey Efforts

In the past, structural characteristics were obtained primarily through the Utility Data Plans (Title 20, CCR Section 1344) under CFM. These regulations required utilities to conduct end-use customer surveys in the residential and commercial sectors every two years and in the assembly-industry sector every four years. Funding for these activities for investor owned utilities was done through CPUC approval of utility DSM budgets. As previously discussed, the recent CALMAC agreement provides a new collaborative framework for conducting surveys on customer characteristics. While the Energy Commission will conduct most of these surveys, within its baseline CALMAC budget allotment, it still needs the cooperation of UDCs for supporting data and assumptions. In addition, under the CALMAC framework, the collaborative process could permit the participating parties to fund further projects beyond the baseline budget allotted to the Energy Commission.

The Committee proposes to eliminate the Utility Data Plan Survey requirements and shift instead to fixed requirements and a compliance option that supports the CALMAC framework for conducting customer-characteristics surveys. This includes the elimination of Data Plan requirements for data on the market penetration of energy-efficiency measures. The Committee proposes fixed survey requirements for medium and large utilities, including UDCs and municipal utilities. The fixed survey requirements the Committee is recommending include:

- residential building survey, with associated UEC analysis, every two years;
- commercial building surveys, with associated EUI analysis, every two years; and
- industrial sector surveys every four years.

In the past, the Energy Commission provided a compliance option for fixed surveys that allowed for equivalent surveys and analytic projects agreed to between the utility and staff that would resolve forecasting issues. Under Utility Data Plan Regulations, utilities were required to file an annual plan outlining these surveys or analytic projects. The Committee is proposing to revise the existing compliance option for the fixed survey requirements to include the collaborative consumer research process proposed under the CALMAC agreement. The Committee also proposes to eliminate the requirement to file annual plans. Through this approach, the Committee hopes to encourage the participation of all utilities, including UDCs and municipal utilities, in this collaborative process. In effect, utilities not now part of this agreement can “opt in” by making a financial contribution and participating in the group’s research projects.

The Committee believes the CALMAC framework provides the most efficient way to use the collective resources of the parties involved for the purpose of collecting consumer characteristics data. The Committee further believes it is appropriate to have the Energy Commission responsible for consumer-characteristic data. It is the Energy Commission’s need for this data to support demand analysis that is the primary rationale for collecting consumer characteristics data. Neither the distribution function of these utilities nor the retailing functions of utilities and ESPs in the restructured market justify collection of these data. Municipal utilities with long term obligation to serve responsibilities can “opt in” to group customer service activities if they perceive this to be in their best interest. Incremental costs for conducting surveys and research costs for UDCs would be funded through PCG, while municipal utilities would continue to fund surveys through existing rates.

The Committee proposes to draft regulations that would support the CALMAC framework by permitting utilities to take the compliance option of having their residential building, commercial building and industrial sector survey requirements met through statewide surveys conducted under the CALMAC framework. The regulations would provide that utilities must submit to the Energy Commission or an Energy Commission designated contractor the necessary information and data for conducting surveys and performing subsequent analyses. This will include appropriate billing file records to enable sampling, individual billing histories for sampled accounts, and load metering data as necessary.

## **Confidentiality and Disclosure**

In the past, the Energy Commission has considered survey data confidential; individual results have not been disclosed. However, processed data has been disclosed in the form of cross tabulations and ratio calculations as long as the individual identity is not compromised. Parties to the proceeding have raised concerns about the disclosure of survey data. In the context of survey data, the 3/60 disclosure rule in current Energy Commission confidentiality regulations is likely to be unworkable. The 3/60 rule only works in the context of the entire population because that is what the 60 percent constraint tests. For survey data, since we never know the characteristics of the entire population from a survey, that test cannot be done.

Staff has examined ways to blend together several respondents under a disclosure rule such as “fewer than 10 respondents” to ensure that any single one of them cannot be discerned. This can be difficult if the survey mixes very different respondents together. For example, a survey with three commercial buildings might include a very large high-rise building that would dominate the results in some ways that might be discernable if the buildings were weighted-in with other data. If blends of ten or more are used, then individual buildings would be harder to discern. However, because there may not be ten respondents in each and every data cell reported, the Energy Commission might be precluded under such a rule from reporting data that was used as inputs to the demand forecasting model.

Staff also examined practices used by Energy Information Administration (EIA) to prevent disclosure of individual data. EIA uses different measures, depending on the major customer sector, to prevent disclosure that might harm an individual respondent. In the case of EIA, the survey efforts are independent of a utility, so therefore utility interest in disclosure is not part of their measures. For the residential sector, individual respondent-identifier data (name, address and other geographical identifiers) are removed. Some other “masking” of data is restricted to ensure that even utilities cannot match respondents to their customers using their own consumption histories. For the commercial sector, no individual results are released, with the exception of written tabulations and analytic reports that do not disclose individual information. EIA also does not even release individual results for the industrial sector, only tabulations and analytic reports. In fact, for the industrial sector, EIA does not even receive the data itself, such data remains with the Bureau of Census data warehouse under tight disclosure restrictions.

The Committee will ensure that in its final proposal, no individual data from survey efforts or filings will be released in a way that permits privacy to be violated. The Committee believes all parties support this decision. The Committee tentatively proposes to examine disclosure rules more carefully in the parallel rulemaking on confidentiality. The Committee proposes that survey data be reported only by customer sector groupings and for the five broad regions in the state. If one of those cells of aggregated data contains less than ten sample points, they will not be reported. The Committee is interested in any other options for disclosure rules for survey data that parties believe are workable and protect customer privacy.

## **LOAD RESEARCH DATA**

The Committee has determined that load research data is essential data for the Energy Commission in order to carry out its mandated functions. The Committee recommends continued collection of load research data from medium and large utilities (UDCs and municipal utilities). This reporting requirement should be the primary responsibilities of utilities as it is tied to the distribution function they perform. This data should include system load shapes and customer load shapes. Hourly load data for both system and sector load shapes should be provided for hourly (60 minute integration) metered demand. We believe these requirements are consistent with obligations of UDCs under CPUC guidance and the practical activities expected of utilities by the ISO.

This reporting requirement for load research data is consistent with current reporting requirements at the Federal Energy Regulatory Commission (FERC) (Form 714) for medium and large utilities. The Committee proposes to accept utility submission of FERC data as a compliance option. The Committee proposes to eliminate the existing requirement for end-use load shapes. The Committee proposes that Energy Commission staff take on the responsibility for conducting any research or surveys on end-use load shapes.

For system load shapes this means an expansion of current requirement to include medium utilities that are reporting to FERC, but that have not been required to report to the Energy Commission. Because the cost of compliance is only the incremental cost of sending copies of the FERC data submission to the Energy Commission, the Committee believes this expansion to medium utilities is reasonable. As we have with some kinds of generation data, the Committee proposes to institute a direct reporting requirement with the presumption most utilities will use the FERC compliance option to ensure that the Energy Commission will obtain this data irrespective of how/whether FERC changes its own requirements.

For sector load shapes the Committee proposes to move from a typical-day basis to a full annual hourly basis. Most utilities are already collecting and posting this hourly data. As a result of this, the Committee believes the change in reporting basis is more consistent with current industry practices. The move to a full annual basis is also more consistent with current market structure, which is based on hourly markets. The Committee also notes that this approach reduces the work necessary to come up with the typical day required under the old regulations since the “post-processing” step to determine “typical” days for each month will no longer be needed.

For sector load shapes, UDCs will need to have the cooperation ESPs and retailers to assure their load shapes are accounted for and that UDC load research data remains representative of all consumers connected to the distribution system. Cooperation in accessing end-use customers of retailers and confidentiality protections will need to be assured. Under the Committee proposal, utilities would be required to process data aggregating the load sample points into the economically defined customer sectors use by the Energy Commission. Costs associated with sector load shapes are expected to be modest over and above what utilities are already doing. The Committee notes that these incremental costs for UDCs can be reimbursed under the proposed CALMAC framework.

The Committee examined several other options for acquiring load research data. Parties suggested accepting the UDC static and dynamic load profile data currently required by the CPUC. The Committee notes two short-comings of this approach: the fact that the posted profiles do not match the sector definition used by the Energy Commission; and municipal utilities are not subject to CPUC requirements. The Committee also considered the option of having UDCs transfer their load research data at the individual end user level to the Energy Commission. Energy Commission staff would then process the data into aggregated sector estimates. Utilities need to continue to perform virtually identical work for rate design and other purposes. Therefore, the Committee concluded it would be more efficient for UDCs to be reimbursed for the incremental cost under the CALMAC framework,



than to have the Energy Commission assume these responsibilities and costs. Also confidentiality and customer privacy concerns are much reduced by having utilities do the data processing into customer sectors, rather than Energy Commission staff.

Parties also suggested the option of having the Energy Commission conduct any necessary load research itself. Under such a proposal, UDCs would provide overall customer population data to the Energy Commission for use in selecting a sample. The Energy Commission would identify end-use customers to meter, install metering systems, collect and process interval data. There was also uncertainty about the Energy Commission's ability to secure the necessary resources and staff to conduct load research. In addition, UDCs raised concerns about confidentiality for supplying the necessary customer population data. The Committee believes that relying on UDCs for this data, with UDCs compensated under the CALMAC framework, is a more efficient and cost-effective means of acquiring load research data.

## APPENDIX

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### ENERGY MARKET AD HOC INFORMATION PROCEEDING WORKSHOPS, PAPERS AND COMMENTS ON CONSUMER DATA ISSUES

June 25, 1998	Draft Final Scoping Report.
July 6, 1998	Comments on Report from MRW & Associates rep: AEP, IEP, Coral Energy, Green Mountain Energy, New Energy Ventures.
July 9, 1998	Workshop.
July 17, 1998	IEP/Co-Gen Council's Letter to Commissioners
July 28, 1998	Final Committee Scoping Report
July 30, 1998	Scoping "Order" signed
Sept. 2, 1998	Comments from CA Biomass Energy Alliance, and Arter & Hadden rep: Dynergy Inc. and Reliant Energy (formerly Houston Industries).
Sept. 4, 1998	Staff Paper: Consumer Information Needs to Support Monitoring & Policy Assessment Functions.
Sept. 15, 1998	Staff Paper: Basic Steps in Conducting Surveys.
Sept. 15, 1998	Staff Paper: Collecting Consumer Structural Characteristics Data by Means of Surveys.
Sept. 17, 1998	Workshop and Staff Presentation, and IEP and Joint Representatives on QFs, Public & Private Utilities, Merchant Plant Developers, Divested Plant Purchases, Customers and other.
Sept. 18, 1998	Joint SB 1305 & 97-DC&CR-1 Workshop (Regional Tracking). Staff Presentation and Phil Carver from Oregon Office of Energy Presentation.
Sept. 29, 1998	Workshop and Presentation.
Oct. 13, 1998	Workshop and Presentation/Staff Comments re: 9-17-98 Workshop.
Oct. 28, 1998	Staff Paper: Background Paper on Load Research Data Requirements at the Energy Commission.
Nov. 16, 1998	Notice Modifying the Schedule for the Second Phase of the Data Collection Rulemaking.
Dec. 12, 1998	Notice of Extension of Deadline for Filing Comments re: Staff Papers.
Feb. 2, 1999	Comments from Enron Corp., Green Mountain Energy Resource, New Energy Ventures and CMA on Consumer Data Collection.